



City of Oak Ridge Wastewater Treatment Plant Design Wins Engineering Excellence Award Unique Process Wins in 2005 Competition



The City of Oak Ridge, Tennessee, and Lamar Dunn & Associates, Inc. received the Engineering Excellence Award in Nashville, Tennessee. Pictured are (from left): Bill Howard, ACEC President (National); Gary Cinder, Public Works Director for City of Oak Ridge; Lamar Dunn, President of LD&A; and Steve Lane, ACEC Tennessee President.

The Oak Ridge Liquid Phase Wastewater Treatment Plant project is very unique. It is the only facility in Tennessee which meets the “blending” criteria established by the regulators. It treats the excess flow due to storm events to a secondary level. The process is a physical-chemical process which was awarded the top level in the Engineering Excellence judging for water and wastewater projects.

The award was presented at the Engineering Excellence Awards Banquet sponsored by the Ameri-

can Council of Engineering Companies of Tennessee.

The plant is controlled by computers to balance the flow between the biological portion of the plant and the physical-chemical train. When the physical-chemical train is activated, the chemical dose rates of ferric chloride and sodium hydroxide are paced in accordance with the flow rate. Flash mixing is accomplished by a Parshall flume. Powdered activated carbon is added after the coagulation process in the flocculators. Following flocculation, solids are

separated in two circular clarifiers. Sludge is either transferred to the aerobic digesters or to the head of the plant (prior to primary sedimentation). The physical-chemical treated wastewater is blended with the filtered biologically treated stream before ultraviolet disinfection.

The plant is designed to accommodate a hydraulic load up to thirty (30) million gallons per day (MGD). It has satisfactorily accommodated that

flow rate on numerous occasions. It was projected that the physical-chemical process would operate about 60—70 days per year. Operations data indicates it actually operates slightly less than that .

An earlier Oak Ridge project received an Engineering Excellence Award and another received a Rebuild Tennessee Award. LD&A has been fortunate to receive Excellence Awards for other projects in the past at both the State and National level.

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Reorganization at the Tennessee Department of Environment and Conservation

On April 14, 2005, Governor Phil Bredesen appointed a new Commissioner and Deputy Commissioner for the Department of Environment and Conservation. Prior to his appointment as Commissioner, Jim Fyke was Director of Nashville's Park System and a Deputy Commissioner of TDEC. Paul Sloan, the new Deputy Commissioner is an attorney, businessman and environmentalist. Mr. Sloan founded Partners-In-Conservation and serves as a trustee of the Nature Conservancy.

Commissioners Fyke and Sloan have reorganized the Department on the environmental side into four bureaus or operational groups; Air Resources, Field Operations, Land Protection, and Water Resources. There are some indications that this Administration may divide the Department into a conservation side and a more streamlined Department of Environment. There are currently eleven environmental divisions and eight regional offices in Tennessee.

A former attorney and Air Pollution Director for the Depart-

assigned the position of Senior Director for Air Resources. The Divisions of Air Pollution and Radiological Health will report to Ms. Carter. David Draughon, a professional engineer with more than 34 years of experience, will serve as acting Senior Director for Water Resources. The Divisions of Groundwater Protection, Water Supply, Water Pollution Control and the West Tennessee Basin Authority will report to Mr. Draughon.

A third senior TDEC employee with significant experience in water supply and hazardous waste issues, Brenda Apple, will supervise the eight regional offices. The Department has offices in Memphis, Jackson, Columbia, Nashville, Cookeville, Chattanooga, Knoxville, and Johnson City. A Senior Director for Land Resources will be announced at a later date.

Lamar Dunn & Associates, Inc. has close professional ties to these latest appointees. They appear imminently qualified for these responsible positions and we look forward to working with them on behalf of our clients.

LD&A Partners with Knox County



Knoxville, Tennessee Skyline

The Tennessee Department of Environment and Conservation has recommended, arbitrarily in some minds, that eleven counties in the state implement vehicle maintenance and inspection (I/M) programs. Six of those counties have chosen to implement I/M, but Knox, Blount, Anderson, Sevier and Shelby (in west Tennessee counties) have chosen other methods to control air quality. Air pollution from fixed industrial and utility sources and mobile (cars and trucks) sources is declining across the state, but remains unacceptably high in certain areas.

LD&A has assisted Knox, Blount, Anderson and Sevier counties develop a viable alternative to I/M, and presented that plan to the State Air Board. An aggressive approach to open burning, reduction in truck speed limits on the interstates and a regional partnership which encourages the voluntary reduction of air pollutants are only a few of the components of the Knox County Plan. To date the Board has agreed to postpone I/M implementation, but the issue is long from being resolved.

The Iraq Connection

Lamar Dunn & Associates, Inc. is presently developing two Preliminary Engineering Reports for water projects in Iraq. Art Baker, a former LD&A employee, is living in Iraq and is associated with LD&A for work there. One of the projects is a new 24 MGD water treatment plant. The other is a rehabilitation project.

**LD& A Assists
the City of Columbia**

In 1997, the City of Columbia saw tremendous residential growth and the need for expanded wastewater services. The Tennessee Division of Water Pollution Control gave the City "planning limits" and \$21 million dollars and new wastewater facilities were constructed. When Columbia's NPDES wastewater permit expired in 2002, changes in regulations and modeling procedures indicated that the new wastewater plant was inadequate for protection of the Duck River, which receives the Columbia discharge.

The Tennessee Valley Authority and the Duck River Agency have been of great assistance in negotiations guided by Lamar Dunn & Associates, Inc. The solution will most likely come as modeling, stream monitoring, and the re-examination of non-point source pollution..

**EDWARDS AND
ASSOCIATES**

Lamar Dunn & Associates, Inc. is providing Civil engineering services in support of Cain Rash West Architects for the new Air Trade Center development for Edwards and Associates, Inc. in the Tri-County Industrial Park in Piney Flats, Tennessee. The project includes site grading, drainage, storm water permitting, utilities and a fire booster pumping station for the new complex being constructed on a fifteen (15) acre site. A new access road to a portion of the site, designed to TDOT standards, was also included in the scope of work. The design documents are separated into three packages for construction scheduling purposes.



**City of Marietta, Georgia
2005 Transportation
Improvement Program**

LD&A assisted the City of Marietta, Georgia in developing project concepts with project budget estimates for over thirty (30) transportation improvement projects, which included intersection improvements, roadway capacity improvements, bridge replacements, streetscape enhancements, and sidewalk extensions. The proposed projects will be funded through a one-cent local option sales tax, if approved by the voters in September 2005. The project concepts and project budget estimates developed by LD&A were utilized by City officials in several presentations to the public. The public meetings were utilized to present the proposed projects and obtain input from the public regarding the proposed projects. Certain project scopes were modified in response to comments received through the public meetings.

LD&A Employees Attend Certified Professional in Erosion and Sediment Control Exam Review Course

Wanis Rghebi and Eric Goodman attended the Certified Professional in Erosion and Sediment Control Exam Review Course in June, 2005. In order to acquire certification, applicants must have a four-year engineering degree and at least three years experience in site development and erosion and sediment control projects. The purpose of the certification is to gain recognition as a specialist in erosion and sediment control. This certification is being recognized and acknowledged by state and federal regulatory agencies. Certification is another step that LD&A has taken to ensure our clients the best site development services.

The CPESC designation identifies specialists who have met established standards of expertise, experience, and knowledge.

LD&A Welcomes Wanis Rghebi, P.E., RLS

In September 2004, Wanis Ali Rghebi, P.E., RLS joined the LD&A family as Chief Civil Engineer.

Wanis brought with him a Master's Degree in envi-

ronmental engineering with fifteen plus years experience in civil engineering and a Bachelor's Degree in mechanical engineering with five years experience as a

mechanical engineer.

He has extensive experience creating site plan layouts, hydrological and hydraulic designs, and wastewater and water designs .



**Wanis A. Rghebi, P.E., RLS
Chief Civil Engineer**



**enhancing
the quality of life
for our clients**

Engineering

*Civil
Instrumentation
Sanitary
Surveying
Water/Wastewater*

Environmental

*Asbestos Abatement
Assessments
Air Pollution
Audits
Brownfields
Landfills
Permitting
Stormwater
UST/AST
Wetlands*

Management

*Construction Services
Health & Safety
Operations
Planning
Program Management*



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